Claims

1. A mobile communication network comprising a group of cells (2) with a common simulcast carrier carrying signaling information, at least a first cell being associated with a first traffic carrier, wherein at least a first mobile station (4,4') is arranged to intermittently perform an intracell handover to the common simulcast carrier, and means for performing measurements of the radio environment when the mobile station (4,4') is using the common simulcast carrier.

2. A claim as claimed in claim 1 wherein the intracell handover is from the first traffic carrier to the common simulcast carrier.

3. A mobile communication network as claimed in claim 1 wherein a clock means (10) is arranged to generate a signal instructing said intracell handover.

4. A mobile communication network as claimed in claim 3 wherein said clock (10) means is located in a fixed part of the network and is arranged to transmit said signal to one or more mobile stations.

5. A mobile communication network as claimed in claim 1 wherein a signal instructing said intracell handover is arranged to be generated in response to a measurement of received signal level or quality of a radio transmission from a mobile station.

6. A mobile communication network as claimed in claim 1 wherein one or more base stations (1,1',8) are arranged to measure a received signal level and/or quality of the signal transmitted by the mobile station on the common simulcast carrier.

7. A mobile communication network as claimed in claim 1 wherein a handover is determined in response to the measurements.

8. A mobile communication network as claimed in claim 1 wherein base stations in different cells (1,1',8) are arranged to measure transmitted signal level and/or signal quality from a plurality of mobile stations in such new uplink channels and the network is arranged to process the measurements to determine the distribution of mobile stations within the network.

9. A mobile communication network as claimed in claim 1 wherein a base station (1') of a cell from which the intracell handover is made is arranged to be re-tuned to receive on a frequency different from the first traffic channel while traffic is being handled by the common simulcast carrier.

10. A mobile communication network as claimed in claim 9 wherein the base station (1') of the cell from which the intracell handover is made is arranged to be used to monitor interference on the first traffic carrier while traffic is being handled by the new uplink channel.

11. A mobile communication network as claimed in any preceding claim which is a GSM network.

12. A base station (1,1') operating in a communication system having a group of cells (2) with a common simulcast carrier carrying signaling information and at least a first cell being associated with a first traffic carrier, the base station (1,1') comprising means for directing a mobile station (4,4') to intermittently perform an intracell handover to the common simulcast carrier i, and means for performing measurements of the radio environment when the mobile station (4,4') is using the common simulcast carrier.

13. A method of operating a mobile communication network with a group of cells (2) with a common simulcast carrier carrying signaling information and at least a first cell being associated with a first traffic carrier, comprising the steps of: intermittently performing an intracell handover of a first mobile (4,4') station to the common simulcast carrier, and performing measurements of the radio environment when the mobile station (4,4') is using the common simulcast carrier.